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#### METEOROLOGICAL DATA REPORT

14806AT LANCE MISSILE NO. 3325, ROUND NO. 297 APT (2 JUNE 1977)

BY

WSMR METEOROLOGICAL TEAM

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ATMOSPHERIC SCIENCES LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO

ECOM
UNITED STATES ARMY ELECTRONICS COMMAND

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# CONTENTS

		PAGE
NTRODUC	TION	1
OISCUSSI	ON	1
TABLES		
1.	Surface Observations taken at WSD	1
II.	Pilot-Balloon-Measured Wind Data, Release No. 1 at 1410 MDT	2
III.	Pilot-Balloon-Measured Wind Data, Releas $\epsilon$ No. 2 at 1420 MDT	4
IV.	Jallen Significant Level Data (Release Time: 1305 MDT)	7
v.	Jallen Upper Air Data (Release Time: 1305 MDT)	9
VI.	Jallen Mandatory Levels (Release Time: 1305 MDT)	15
VII.	Stallion Significant Level Data (Release Time: 1400 MDT)	16
VIII.	Stallion Upper Air Data (Release Time: 1400 MDT)	17
IX.	Stallion Mandatory Levels (Release Time: 1400 MDT)	20
х.	WSD Significant Level Data (Release Time: 1410 MDT)	21
XI.	WSD Upper Air Data (Release Time: 1410 MDT)	23
XII.	WSD Mandatory Levels (Release Time: 1410 MDT)	30

#### INTRODUCTION

14806AT Lance, Missile Number 3325, Round Number 297 APT, was launched from LC-39, White Sands Missile Range (WSMR), New Mexico, at 1420 HRS MDT, 2 June 1977. The scheduled launch time was 1420 HRS MDT.

#### DISCUSSION

Meteorological data were recorded and reduced by the WSMR Meteorological Team, Atmospheric Sciences Laboratory (ASL), WSMR, New Mexico. The data are presented in the following tabulations.

ELEVATION	3990	FEET/MS
PRESSURE	877.6	MBS
TEMPERATURE	36.6	°C
RELATIVE HUMIDITY	14.	%
DEW POINT	4.8	°C
DENSITY	981.2	GM/M <sup>3</sup>
WIND SPEED	15 GUST 27	мрн
WIND DIRECTION	120	DEGREES
CLOUD COVER	7 2	Cb Ci

TABLE I. SURFACE OBSERVATIONS TAKEN AT WSD, 1420 HRS MDT/2 JUNE 1977.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)	HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
SUR	180	10.0	2100	203	6.0
100	177	19.0	2200	225	5.0
200	170	20.0	2300	184	2.0
300	168	18.0	2400	303	2.0
400	166	18.0	2500	224	4.0
500	167	20.0	2600	225	5.0
600	161	18.0	2700	244	4.0
700	159	18.0	2800	308	3.0
800	154	16.0	2900	185	4.0
900	174	14.0	3000	190	4.0
1000	159	15.0	3100	201	4.0
1100	165	15.0	3200	189	5.0
1200	180	12.0	3300	187	6.5
1300	172	15.0	3400	190	8.0
1400	176	12.0	3500	172	10.0
1500	172	5.0	3600	190	7.0
1600	163	4.0	3700	173	10.0
1700	142	4.0	3800	180	7.0
1800	159	8.0	3900	169	4.5
1900	149	6.0	4000	171	7.0
2000	135	3.0	4100	175	7.5

TABLE IL PILOT-BALLOON-MEASURED WIND DATA, RELEASE NO. 1
RELEASED FROM LC-39, AT 1410 MDT/2 JUNE 1977 14806AT LANCE, MISSILE NO. 3325, ROUND NO. 297APT

## PIBAL RELEASE POINT WSTM COORDINATES:

X = 530,938.82 Y = 186,564,96 Z = 4,063.75

APPROXIMATELY: 1 MILE SOUTH OF LAUNCHER

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
4200	191	7.5
4300	182	5.5
4400	182	4.5
4500	172	4.0
4600	165	9.0
4700	160	8.0
4800	164	8.0
4900	177	7.0
5000	192	5.0
5100	190	3.0
5200	190	6.0
5300	200	3.0
5400	170	4.0
5500	141	5.0
5600	153	6.0

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
5700	150	3.0
5800	152	4.0
5900	153	4.0
6000	154	4.0
6100	158	4.0
6200	163	6.0
6300	168	8.0
6400	136	6.0
6500	136	7.0
6600	121	6.0
6700	124	5.0
6800	142	9.0
6900	152	9.0
7000	151	9.0

TABLE II. (CONT)

HEIGHT	DIRECTION SPEED		HEIGHT	DIRECTION	SPEED
(FEET)	(DEGREES)	(MPH)	(FEET)	(DEGREES)	(MPH)
SUR	200	10.0	2100	181	4.5
100	205	19.0	2200	181	6.0
200	205	19.0	2300	209	3.5
300	204	20.0	2400	206	5.0
400	203	21.0	2500	190	7.5
500	.206	19.0	2600	212	7.5
600	196	21.0	2700	199	7.0
700	194	21.0	2800	190	8.0
800	194	17.5	2900	207	7.5
900	185	19.5	3000	190	3.5
1000	190	15.5	3100	190	8.0
1100	198	14.5	3200	204	7.5
1200	173	13.0	3300	183	10.0
1300	160	10.0	3400	179	10.0
1400	171	9.5	3500	197	10.0
1500	166	9.5	3600	188	11.0
1600	169	7.5	3700	191	8.0
1700	162	8.0	3800	184	7.5
1800	169	7.0	3900	202	11.5
1900	165	5.0	4000	205	10.5
2000	191	5.0	4100	204	11.0

TABLE III. PILOT-BALLOON-MEASURED WIND DATA, RELEASE NO. 2 RELEASED FROM LC-39, AT 1420 MDT/2 JUNE 1977 14806AT LANCE, MISSILE NO. 3325, ROUND NO. 297APT

# PIBAL RELEASE POINT WSTM COORDINATES:

X = 530,938.82 Y = 186,564.96 Z = 4,063.75

APPROXIMATELY: 1 MILE SOUTH OF LAUNCHER

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
4200	190	9.0
4300	208	4.5
4400	207	5.5
4500	183	7.0
4600	192	7.0
4700	192	6.5
4800	188	6.0
4900	197	5.0
5000	213	5.5
5100	199	5.5
5200	204	4.5
5300	198	6.0
5400	189	5.5
5500	180	5.0
5600	139	4.0
5700	178	3.0
5800	153	6.5
5900	137	3.5
6000	170	5.0
6100	152	6.0
6200	136	6.0
6300	158	7.5
6400	148	6.0
6500	138	6.0

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
6600	140	5.0
6700	156	6.0
6800	157	6.0
6900	151	9.0
7000	140	7.5
7100	140	4.0
7200	140	6.0
7300	141	6.0
7400	141	6.5
7500	138	5.0
7600	135	5.5
7700	131	5.5
7800	125	8.0
7900	148	8.0
8000	119	12.0
8100	112	11.0
8200	108	10.0
8300	124	10.0
8400	143	10.0
8500	127	12.5
8600	130	14.0
8700	133	13.5
8800	130	8.5
8900	132	11.0

TABLE III. (CONT)

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
9000	137	8.0
9100	124	9.0
9200	127	10.0
9300	146	10.0
9400	147	9.0
9500	141	9.0
9600	110	9.0
9700	136	13.0
9800	144	13.5
9900	151	8.0
10000	149	10.5
10100	164	10.5
10200	170	10.5
10300	165	16.5
10400	162	12.5
10500	165	13.5

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
10600	157	12.5
10700	162	16.0
10800	155	12.0
10900	152	10.5
11000	161	12.5
11100	090	9.0
11200	137	18.0
11300	118	21.5
11400	123	21.0
11500	118	25.5
11600	122	15.0
11700	117	17.5
11800	122	17.5
11900	132	12.0
12000	119	25.0

TABLE III. (CONT)

REL.HUM. PERCENT	25.0 25.0 25.0 25.0 25.0 25.0 25.0 25.0
RATURE Dewpotnt Centigrade	
TEMPE AIR DEGREES	
GENMETRIC ALTITUDE MSL FEST	4051.0 4390.8 17425.4 17626.1 136360.1 136360.1 136360.1 13636.4 13140.2 23695.3 331258.9 331258.9 33456.0 335478.1 46456.1 55456.0 55456.0
PRESSURE MILLIBARS	88666 866666 866666 866666 866

N S		
4051.00 FEET	1305 HRS MDT	,
TITUDE		12 C
AL	77	4
STATICN	2 JUNE 77	ACCENCTOR NO

SIGNIFICANT LEVEL DATA 1530030232 JALLEN TABLE IV. (CONT)

WSTH SITE COORDINATES 450491.60 FEET E 464023.05 FEET N

PRESSURE GEOMETRIC ALTITUDE MILLIBARS MEL FECT

TEMPERATURE ATR DEWPOINT DEGREES CENTISRADE

REL . HUM.

-52.8 79343.9 85752.1 87841.7 30.0 22.3 20.3 STATION ALTITUDE 4051.00 FOET MSI 2 JUNE 77 1305 HRS MDT. ASCENSION NO. 227

UPPER AIR DATA 1530030732 JALLEN TABLE V.

WSTM SITE COORDINATES 450491.6C FEET E 464023.05 FEET N

Second Color	GECMETRIC	PRESSURE		L	REL. HUM.	CHASTIY STANDER	SPEED OF	MIND	414	INDEX
C         875.0         9.6         25.0         9955.0         695.0         677.6           C         845.3         26.6         5.8         24.2         997.8         677.6           C         815.6         26.6         5.0         25.3         991.8         677.6           C         815.6         24.0         25.3         948.8         675.9         675.9           C         790.3         21.4         8         75.4         957.8         677.8         675.6           C         775.4         20.1         -3         75.4         971.8         675.6           C         775.4         70.1         -3         75.5         996.1         675.6           C         775.2         977.8         666.5         996.1         675.6         675.6           C         775.2         977.8         666.5         997.8         666.5         675.6           C         775.5         75.6         997.7         666.5         675.6         675.6           C         770.6         770.6         770.6         770.6         770.6         770.6         770.6         770.6         770.6         770.6         770.6         <	MSE FEET	€	DEGREE	EN LIGRAD	2	METER	NO.	DESREESITAL	KNOTS	RFFRACTION
0.0         0.0 <td></td> <td>876.4</td> <td>F . 1</td> <td>9.6</td> <td>25.0</td> <td>5</td> <td>6.82.4</td> <td>170.0</td> <td>5.1</td> <td>1.000270</td>		876.4	F . 1	9.6	25.0	5	6.82.4	170.0	5.1	1.000270
0.0         0.0 <td></td> <td>863.0</td> <td><math>\alpha</math></td> <td>5.8</td> <td>24.2</td> <td>97.</td> <td>677.6</td> <td>171.0</td> <td>5.0</td> <td>. 0002</td>		863.0	$\alpha$	5.8	24.2	97.	677.6	171.0	5.0	. 0002
0         0		846.3	10	5.0	25.3		6.15.0	172.1	5.0	0
0         816.6         24.0         2.9         25.2         944.0         671.8           0         804.4         22.7         1.8         25.3         944.0         671.8           0         790.3         21.4         .8         25.4         931.8         679.6           0         76.4         20.1        3         25.5         996.0         668.1           0         76.2         18.8         -1.7         25.6         996.0         668.1           0         736.2         16.1         -2.6         75.6         996.0         668.5           0         736.2         16.1         -2.6         996.0         668.5           0         736.2         18.4         663.4         663.4           0         725.7         884.4         663.4           0         725.7         884.4         663.4           0         675.8         76.0         874.9           0         675.8         76.0         874.4           0         676.9         76.0         875.4           0         676.9         76.0         875.4           0         676.5         76.0         875.4		8 33 . 4	10	0.4	25.1	963.1	674.3	173.2	6.4	
904.4         22.7         1.8         25.3         944.C         671.2           790.3         21.4         .8         25.4         931.8         669.6           775.4         20.1        3         25.5         90.7         66.5           75.6         18.8         -1.7         25.6         906.0         66.5           75.6         17.5         -2.4         25.6         906.0         66.5           75.7         170.6         17.5         -2.4         25.7         884.4         657.0           770.6         723.3         14.8         -4.6         25.7         884.4         657.0           770.6         725.7         884.4         657.0         767.0         657.0           770.6         725.7         884.7         657.0         767.0         657.0           770.6         875.3         10.3         -6.0         858.9         657.2           770.6         875.1         875.0         658.8         657.2           770.6         875.1         875.0         875.1         675.1           770.6         875.1         875.0         875.1         675.0           770.6         875.1		818.8	-	2.0	75.2	5.350	6,2,8	173.6	3.8	•
793.3 21.4 .8 25.4 931.8 669.6 75.4 75.4 20.1 75.4 20.13 25.5 910.7 668.1 75.4 20.1 75.4 20.13 25.5 910.7 668.1 75.2 18.8 -1.2 25.6 996.0 665.8 20.1 756.2 16.1 23.5 25.7 884.4 663.4 663.4 756.2 16.1 23.5 25.7 884.4 663.4 653.4 756.2 16.1 22.2 -6.7 76.0 838.9 657.2 658.8 172.2 -6.7 76.0 838.9 657.2 669.5 669.8 172.2 -6.7 76.0 838.9 657.2 648.1 7.0 -11.7 24.8 816.1 654.1 655.7 660.5 683.8 16.1 655.7 25.4 816.1 654.1 655.7 26.8 160.8 652.6 642.9 8.3 -10.5 24.2 752.6 642.5 646.1 15.4 26.9 752.0 644.4 752.0 633.1 -15.7 24.2 752.0 644.4 752.0 658.5 752.0 644.4 -15.7 740.6 752.0 644.4 752.0 658.5 752		804.4	"	1.8	25.3	3. 446	671.2	173.9	2.7	
0         775.4         20.1        3         25.5         91°.7         658.1           0         749.4         18.8         -1.7         25.6         996.0         665.5           0         736.2         16.1         -3.5         25.6         996.0         675.0           0         736.2         16.1         -3.5         25.7         884.4         657.8           0         723.3         14.8         -4.6         25.8         884.4         657.0           1         712.6         13.5         -5.6         75.9         877.0         657.2           1         685.3         10.9         -8.0         75.1         838.9         657.2           1         685.3         10.9         -8.0         75.1         838.9         657.2           1         685.3         10.9         -8.0         75.2         658.8         857.2           1         660.5         8.3         -10.5         74.8         87.1         657.1           1         648.4         7.0         -11.7         24.2         782.6         647.9           1         656.5         5.8         -13.0         742.5         646.1		793.3	_	8.	25.4	071.8	6.69.6	173.7	2.1	
0         762.8         18.8         -1.3         25.6         907.8         666.5           0         749.4         17.5         -2.4         75.6         996.0         545.0           0         736.2         16.1         -2.4         75.6         896.0         545.0           0         723.3         14.8         -4.6         25.8         877.0         653.4           1         723.3         14.8         -4.6         25.8         877.0         653.4           1         685.3         10.9         -6.7         76.0         887.0         653.2           1         687.2         -6.7         76.0         838.9         653.2           1         689.3         10.9         -8.0         75.7         853.8           1         660.5         8.3         -10.5         74.5         872.6           1         660.5         8.3         -10.5         772.6         645.1           1         -15.2         24.6         772.6         646.1           1         -15.7         24.6         752.0         646.1           1         -14.0         -15.7         74.5         752.0         646.1		175.4	0	3	25.5	910.7	658.1	113.3	2.3	.0002
0         749.4         17.5         -2.4         75.6         996.0         565.4           0         736.2         16.1         -3.5         25.7         884.4         653.4           0         723.3         14.8         -4.6         25.8         87.0         661.7         670.5           0         698.1         12.2         -5.6         76.0         861.7         670.5           0         685.3         10.4         -6.7         76.0         838.9         657.2           0         685.3         10.4         -6.7         76.0         838.9         657.2           0         672.8         9.6         -9.2         25.1         838.9         657.2           0         672.8         9.6         -9.2         25.1         838.9         657.2           0         678.4         9.6         -9.2         25.1         875.2         658.1           0         678.4         70.2         70.2         70.2         70.2         70.2           0         656.5         5.8         -13.0         74.5         72.6         746.1         72.6           0         679.4         3.1         -15.1		762.8	m	-1.3	25.6	96.7.8	666.5	173.2	3.1	•
0         756.2         16.1         -3.5         25.7         884.4         653.8           0         723.3         14.8         -4.6         25.8         877.0         661.7         670.2           0         698.1         12.2         -5.6         76.0         875.2         658.8           0         685.3         10.4         -6.7         76.0         838.9         657.2           0         685.3         10.4         -8.0         75.7         838.9         657.2           0         672.8         9.6         -9.2         75.4         877.4         655.7           0         678.4         7.0         -11.7         24.8         875.0         654.1           0         648.4         7.0         -11.7         24.8         875.0         649.5           0         656.5         5.8         -13.0         24.2         783.2         646.1           0         654.9         3.1         15.4         26.9         752.0         640.4           0         679.4         -15.7         24.6         72.0         646.1           0         679.4         -16.1         15.7         74.5         72.0		749.4	-	-2.4	75.6	3.960	545.E	172.7	4.3	1.000223
123.3         14.8         -4.6         25.8         877.0         661.7         670.5           120.6         13.5         -5.6         76.0         861.7         670.5         658.8           0         685.3         10.4         -8.0         75.7         838.9         657.2           0         672.8         9.6         -9.2         25.4         877.4         655.7           0         648.4         7.0         -11.7         24.8         877.4         655.7           0         656.5         8.3         -10.5         25.1         877.4         655.7           0         648.4         7.0         -11.7         24.8         875.0         654.1           0         656.5         5.8         -13.0         24.2         782.0         647.9           0         654.9         3.1         15.4         26.9         762.0         646.1           0         679.4         15.4         26.9         762.0         646.1           0         679.4         -16.1         31.5         741.9         642.6           0         679.4         -16.1         40.5         721.9         639.1           0 <td></td> <td>736.2</td> <td></td> <td>.3.5</td> <td>25.7</td> <td>884.4</td> <td></td> <td>177.4</td> <td>5.6</td> <td>•</td>		736.2		.3.5	25.7	884.4		177.4	5.6	•
7 712.6 13.5 -5.6 75.9 861.7 670.3 698.1 12.2 -6.7 76.0 838.9 657.2 10.9 -9.2 25.4 877.4 655.7 650.8 8.3 -10.5 25.1 877.4 655.7 650.5 8.3 -10.5 25.1 877.4 655.7 650.5 8.3 -10.5 25.1 877.4 655.7 24.8 8.3 -10.5 25.1 815.1 654.1 648.1 654.1 656.5 25.8 -13.0 24.8 805.0 652.6 647.9 652.6 613.4 3.1 -15.2 24.6 752.0 647.9 652.0 647.9 653.1 -15.1 -15.1 27.2 74.6 752.0 644.4 15.1 -15.1 77.2 65.9 752.0 644.4 15.1 -15.1 77.2 65.9 752.0 640.8 657.7 -4.4 -15.1 77.2 65.9 752.0 640.8 752.0		123.3	-	9.4-	25.8	877.0		172.0	5.7	_
0         698.1         12.2         -6.7         76.0         858.8         658.8           0         672.8         9.6         -9.2         25.4         877.4         657.2           0         672.8         9.6         -9.2         25.4         877.4         657.2           0         648.4         7.0         -11.7         24.8         815.0         652.1           0         636.5         5.8         -13.0         24.2         794.0         652.0           0         624.9         4.5         -14.2         24.2         794.0         652.1           0         624.9         4.5         -14.2         24.2         762.0         649.5           0         613.4         3.1         -15.2         24.6         752.0         646.1           0         679.4         -15.7         26.9         752.0         646.1           0         579.4         -15.7         24.6         72.6         646.1           0         579.4         -16.1         40.6         72.9         72.0         646.1           0         556.5         -2.9         -16.1         40.6         721.4         639.1		710.6	-	-5.F	6.5	961.7		171.6	3.6	1.000211
0         685.3         10.9         -8.0         75.7         838.9         657.2           0         672.8         9.6         -9.2         25.4         877.4         655.7           0         648.4         7.0         -11.7         24.8         815.0         672.6           0         636.5         5.8         -13.0         74.5         794.0         652.6           0         636.5         5.8         -13.0         74.5         794.0         672.6           0         636.5         3.1         -14.2         24.2         794.0         672.6           0         636.5         3.1         76.2         649.0         772.6         649.5           0         613.4         3.1         76.2         76.0         646.1         772.6         6417.9           0         579.4         -1.4         -15.7         24.2         752.0         646.1           0         579.4         -1.4         -15.7         741.9         642.6           0         558.5         -2.9         -16.5         721.9         639.1           0         556.5         -6.9         -71.9         690.8         701.1         634.6<		698.1	$\sim$	-6.1	0.96	850 e.S	658.8	1,001	4.5	
0         672.8         9.6         -9.2         25.4         877.4         655.7           0         648.4         7.0         -11.7         24.8         816.1         654.1           0         648.4         7.0         -11.7         24.8         805.0         672.6           0         636.5         5.8         -13.0         24.2         783.2         649.5           0         624.9         4.5         -14.2         24.2         783.2         649.5           0         613.4         3.1         -15.2         24.6         772.6         647.9           0         613.4         3.1         -15.2         24.6         772.6         647.9           0         590.5         3.1         76.9         752.0         646.1           0         579.4         -1.4         -15.7         79.2         752.0         644.4           0         558.5         -2.9         -16.5         33.8         732.0         640.8           0         558.5         -2.9         -16.5         40.6         721.9         639.1           0         556.5         -6.3         -17.9         40.9         701.1         535.1 <td></td> <td>685.3</td> <td>-</td> <td>-8.0</td> <td>75.7</td> <td>838.9</td> <td>657.2</td> <td>169.6</td> <td>3.9</td> <td>1.030203</td>		685.3	-	-8.0	75.7	838.9	657.2	169.6	3.9	1.030203
2         660.5         8.3         -10.5         25.1         816.1         654.1           0         648.4         7.0         -11.7         24.8         805.0         672.6           0         636.5         5.8         -13.0         24.2         783.2         649.5           0         624.9         4.5         -14.2         24.2         783.2         649.5           0         613.4         3.1         -15.2         24.6         772.6         647.9           0         613.4         3.1         -15.7         24.6         772.6         647.9           0         590.5         -1         -15.7         24.6         752.0         646.1           0         579.4         -1.4         -15.7         24.2         752.0         640.4           0         558.5         -2.9         -16.6         33.8         732.0         640.8           0         557.7         -4.4         -15.7         40.6         721.4         639.1           0         556.5         -6.3         -17.9         40.6         721.4         690.8           0         555.5         -6.3         -17.9         690.7         690.7 </td <td></td> <td>612.8</td> <td>9.6</td> <td>2.0-</td> <td>25.4</td> <td>827.4</td> <td>655.7</td> <td>168.4</td> <td>3.5</td> <td>-</td>		612.8	9.6	2.0-	25.4	827.4	655.7	168.4	3.5	-
0         648.4         7.0         -11.7         24.8         805.0         652.6           0         656.5         5.8         -13.0         24.2         794.0         651.1           0         624.9         4.5         -14.2         24.2         763.2         649.5           0         613.4         3.1         -15.2         24.6         772.6         647.9           0         571.4         1.6         15.4         26.9         762.2         646.1           0         579.4         -1.4         -15.7         24.2         752.0         644.4           0         579.4         -1.4         -15.7         29.2         752.0         644.4           0         558.5         -2.9         -16.6         33.8         732.0         640.8           0         557.7         -4.4         -15.7         40.6         721.4         639.1           0         557.5         -6.9         -72.9         -6.9         701.1         535.5           0         555.5         -6.9         -72.9         -6.9         70.1         537.5           0         555.5         -6.9         -72.9         -6.9         70.0 <td></td> <td>660.5</td> <td>8.3</td> <td>-10.5</td> <td>25.1</td> <td>816.1</td> <td></td> <td>165.9</td> <td>3.1</td> <td>1.000195</td>		660.5	8.3	-10.5	25.1	816.1		165.9	3.1	1.000195
0         636.5         5.8         -13.0         24.5         794.0         651.1           0         624.9         4.5         -14.2         24.2         783.2         649.5           0         613.4         3.1         -15.2         24.6         772.6         647.9           0         590.5         .1         -15.7         26.9         762.2         646.1           0         579.4         -1.4         -15.7         27.2         741.9         642.6           0         579.4         -1.4         -16.6         33.8         732.0         640.8           0         557.7         -4.4         -15.7         40.6         721.9         639.1           0         557.7         -4.4         -15.7         40.6         721.9         639.1           0         536.5         -6.7         -14.0         51.7         711.6         637.5           0         536.5         -6.9         -70.0         690.7         634.6           0         526.1         -8.0         -22.5         70.0         690.7         634.6           0         515.9         -3.0         -26.3         73.1         636.7         636.		648.4	7.0	-11.7	8.42	805.0	652	160.7	2.5	
0         624.9         4.5         -14.2         24.2         783.2         649.5           0         613.4         3.1         -15.2         24.6         772.6         647.9           0         590.5         .1         -15.7         26.9         762.2         646.1           0         579.4         -1.4         -15.7         27.2         741.9         642.6           0         579.4         -1.4         -16.6         33.8         732.0         640.8           0         558.7         -4.4         -15.7         40.6         721.9         639.1           0         557.7         -4.4         -15.7         40.6         721.9         639.1           0         536.5         -6.9         -17.9         40.9         701.1         535.1           0         526.5         -6.9         -70.0         690.7         634.6           0         526.1         -8.0         -22.5         70.0         690.1         633.3           0         515.9         -3.0         -26.3         73.1         680.1         633.3		636.5	5.8	-13.0	24.5	C. #67	F 51	134.0	2.0	1.000188
4500.0     613.4     3.1     -15.2     24.6     772.6     647.9       4500.0     501.8     1.6     15.4     26.9     752.0     646.1       5000.0     590.5     .1     -15.7     29.2     752.0     644.4       5500.0     579.4     -1.4     -16.1     31.5     741.9     642.6       6000.0     568.5     -2.9     -16.6     33.8     732.0     640.8       6500.0     557.7     -4.4     -15.7     40.6     721.9     639.1       7000.0     547.0     -5.7     -14.0     51.7     711.6     637.5       7500.0     536.5     -6.9     -17.9     40.9     701.1     535.1       800.0     520.1     -22.5     70.0     690.7     634.6       8500.0     515.9     -26.3     73.1     680.1     633.3		6.429	ر. 10	-14.2	24.2	783.2	649	106.7	2.4	.00018
4500.0     501.8     1.6     15.4     26.9     752.0     644.4       5000.0     579.4     -1.4     -15.7     29.2     752.0     644.4       5500.0     579.4     -1.4     -16.6     33.8     732.0     640.8       6500.0     568.5     -2.9     -16.6     33.8     732.0     640.8       6500.0     557.7     -4.4     -15.7     40.6     721.9     639.1       7003.0     547.0     -5.7     -14.0     51.7     711.6     637.5       8000.0     526.1     -8.0     -22.5     70.0     690.7     634.6       8500.0     515.9     -9.0     -26.3     73.1     680.1     633.3	4000	613.4	3.1	-15.2	24.6	772.6	647.	6.96	3.6	.00018
5500.0 579.4 -1.4 -15.7 29.2 752.0 644.4 6500.0 579.4 -1.4 -15.1 31.5 741.9 642.6 6000.0 568.5 -2.9 -16.6 33.8 732.0 640.8 6500.0 557.7 -4.4 -15.7 40.6 721.9 639.1 7000.0 535.5 -6.9 -17.9 40.9 701.1 535.1 6800.0 520.1 -8.0 -22.5 70.0 690.7 634.6 8500.0 515.9 -9.0 -26.3 73.1 680.1 633.3	4500.	8.01.8	1.6	15.4	26.9	762.2	949	90.1	4.5	
5500.0     579.4     -1.4     -15.1     31.5     741.9     642.6       5000.0     568.5     -2.9     -16.6     33.8     732.0     640.8       6500.0     557.7     -4.4     -15.7     40.6     721.9     639.1       7000.0     547.0     -5.7     -14.0     51.7     711.6     637.5       7500.0     536.5     -6.9     -17.9     40.9     701.1     535.1       8500.0     515.9     -3.0     -26.3     73.1     680.1     633.3	5000	590.5	-:	-15.7	24.2	752.0	644.	104.6	5.1	.00017
6500.0 568.5 -2.9 -16.6 33.8 732.0 640.8 6500.0 557.7 -4.4 -15.7 40.6 721.9 639.1 7000.0 547.0 -5.7 -14.0 51.7 711.6 637.5 7500.0 536.5 -6.9 -17.9 40.9 701.1 535.1 8000.0 520.1 -8.0 -22.5 70.0 690.7 634.6 8500.0 515.9 -3.0 -26.3 73.1 680.1 633.3	5500.	579.4	_	-15.1	31.5	741.9	642	112.5	5.6	. 30317
6500.0   557.7	.0003	568.5	2	-16.6	33.8	732.0	640	119.9	6.1	00.
7000.0 547.0 -5.7 -14.0 51.7 711.6 E37.9 17500.0 536.5 -6.9 -17.9 40.9 701.1 535.8 8000.0 520.1 -8.0 -22.5 70.0 690.7 634.8 8500.0 515.9 -9.0 -26.3 73.1 680.1 633.	6500.	557.7	-3	-15.7	40.6	721.9	639.	130.4	6.5	2017
7500.0 536.5 -6.9 -17.9 40.9 701.1 535  8000.0 520.1 -8.0 -22.5 70.0 690.7 634  8500.0 515.9 -3.0 -26.3 73.1 680.1 633	7000.	547.0	2	- 14 .0	51.7	711.6	€37.	140.0	7.0	.00016
8000.0 520.1 -8.0 -22.5 70.0 690.7 634 8500.0 515.9 -3.0 -26.3 73.1 680.1 633	17500.	536.5	G	-17.9	6.04	701.1	535	154.0	7.0	316
8500.0 515.9 -9.0 -26.3 73.1 680.1 633	8000	526.1	8	-22.5	40.0	690.7	634	167.0	7.3	1000
	8 5 C C .		Ci	-26.3	100	680.1	633	179.6	6.6	1.000155

VSTM SITE COORDINATES 450491.60 FEET E 464023.05 FEET N	INDEX OF RPFRACTION	1.000152
4641	SPEED KNOTS	e 5 0 .1
	WIND DATA DIRECTION SPEED DESREES(IN) KNDIS	193.0
322	SPEED OF SOUND KNOTS	669.4 632.1 652.6 631.0
UPPER AIR DATA 1530030232 JAILEN TABLE V. (CONT)	REL.HUM. DENSITY SPEED OF PERCENT CHACUBIC SOUND METER KNOTS	669.4 658.6
TABL	PERCENT	21.2
FEET WSL RS NOT	GECMETRIC PRESSURE TEMPSRATURE REL.HUM. DENSITY SPESO OF ALTITUDE AIR DEMPOINT PERCENT CHACUBIC SOUND MSL FEET MILLIBARS DEGREES GENTIGRADE METER KNOTS	- 28 · C
1305 HRS MOT	AIR DEGREES	-10.0
232	PPESSURE MILL IBARS	505.8 -10.0 495.9 -10.9
STATION ALTITUDE 4751.50 2 JUNE 77 1305 HE ASCENSION NO. 232	GECMETRIC PRESSURE ALTITUDE MSL FEET MILLIBARS	19500.0

AL LITUDE				11000	٠				
			2	PERCENT	CM/CUBIC	-	חואורוזה		10
FEET	MILL IBARS	DEGREES	CENTIGRADE		METER	OZ	DESREESITNI		RICRACTION
0.000	505.8	-10.0	0.85.	21.2	669.4		193.0	o. r.	
5000	3	10.0	- 29.2	20.4	658.6	9	8	4.1	1.000150
0.000	-	11.	-29.3	21.4	647.5	830	221.2	2.6	.00014
500.0	9.974	-12.5	- 29.5	22.4	9 * 9 £ 9	F29		1 . 3	.00014
0.000	,	-13.2	7.6.7	13.4	0.850	823	140.3	2.7	.00014
50000		-14.0	0.02-	24.4	615.4	627	137.3	5.4	.00014
0.000	448.9	-14.8	-26.4	16.2	67 409	626	138,8	7.2	
500.0	439	-15.6	-29.5	30.0	594.8		140.4	8.7	.0001
0.0003	431.1	-15.4	-32.3	73.1	584.8		143.7	7.9	.00013
530.0	422	-17.2	-36.1	17.4	574.9	623	147.5	7.1	.00013
0.000	414	-18.3	-36.9	17.7	565.7		151,8	6.2	
24500.0	435.	-19.5	-35.7	72.D	557.1	F20	157.0	6.9	.00012
0.000		9-06-	-35.2	26.0	548.4		151.5	6.2	.00012
500.0	м	-22.1	-35.2	29.1	539.8		168.1	6.3	.00012
0.000	۳,	-23.4	-35.3	32.2	511.3		175.9	9.9	.00012
2009	<b>(*)</b>	-24.7	- 75.5	35.3	527.D		178.6	6.1	.0001
0.000	F)	-25.9	-35.0	38.4	6.14.8		180.9	0.0	.00011
5000.0	357.9	-27.2	-36.3	41.5	506.8		182.9	0 • 9	•
0.000	۲,	-28.5	-35.7	44.7	498.9			6.2	.00011
530.3	М	-29.8	-37.3	47.8	481.1		187.2	6.5	.00011
0000	(*)		-78.1	49.8	483.4			6, 9	.00015
500.0	32 R	- 32 . 4	4.62.	49.1	475.6	<b>4</b> C3	191.5	7.2	.00010
0.000	<b>F</b> 7	-33.6	-46.1	48.3	467.9			7.5	.00010
500.0	314	•	- 42.1	_	466.3	601.3	192.7	7.7	.00010
0.0001	308.1	-36.2	-43.4	46.9	452.9	599.7	191.6	7.8	.00010
500.0	~	37.	-44.8		2. 844	598.1		7.6	01000.
0.000	294.	•	- 46.2	45.1	438.7		186.1	7.2	60000
500.0	28	0.04-	-47.5	43.8	4 30 • 8	594	183.1	6.5	.00009
0.000	282.	•	- 48.0	45.6	423.F	5 93 . 3	179.2	6.	0000
1500.D	27	-42.6	-51.3	37.4**	416.5	591.6	174.0	5.4	1.000093

AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

	USTM SITE COORDINATES	4 4 0 4 31.60 FEET E	464023.05 FEET N	
UPPER AIR DATA	152003022	JALLEN	TABLE V. (CONT)	
	STATION ALTITUDE 4051. CO FEET MSL	JUNE 77 1395 HRS MDT	ASCENSION NO. 272	

NO. 232 1	1305 HRS M	MDT	TA	JALLEN TABLE V. (CONT)	F)		197	450491.60 FEET E	
PRESSJAE	1 EMB	EMPERATURE REL.HUM. DENSITY SPEED OF	RTL . HUM.	DENSIT &	SPEED OF	KIND DATA	4.	INDEX	
	AIR	DEWPOINT	PERCENT	GM/CUBIC	SOUND	DEWPOINT PERCENT GM/CUBIC SOUND DIRECTION SPEED	03205	9.0	
	0110010	TOTAL CHILD CHILD TOTAL TOTAL							

7	418	DEWPOINT	PERCENT	750	SOUN	DIRECTIO	3205	4 .0 & 1 0 E
MILLIBARS	DECREES	CENTIGRAPE		METER	KNOTS	(2)	KNDTS	REFRACTION
6	3	5	27.8**	•	589.8	174.2	4.8	.0000
10	-45.4	- 59.5	18.3**	403.1	537.9	185.7	4.0	
57	Ф	9	0.7.	.0	æ	218.1	3.7	.0000
51.	48				5.84.3	7.26.7	5.8	*C000*
46.	$\omega$			2	583.4	270.7	3.2	.0000
40.	6 7			:	532.4	276.0	13.2	.0000
34.	O				181.4	278.1	16.5	.0000
.62	51			-	5 80 . 4	278.3	18.8	8
24.	5				5.9.5	277.9	20.6	.00007
18.	52				578.5	275.8	21.5	.00001
213.9				338.8	577.7	273.6	22.7	.0000.
08.	-53.4			331.2	577.5	269.2	24.3	0
. 40	10			723.8	2.77.2	265.3	26.1	,0007.
99	~			316.4	577.6	265.8	27.7	.0000
. 46	M			308.8	517.3	9.932	20.3	90000.
90.	53			301.4	517.5	269.1	30.5	יחםםם.
85.	53			294.1	577.7	272.1	31.6	90000
81.	m			287.0	578.0	271.1	31.8	.000
17.	53			281.1	577.1	268.1	31.5	00000
12.	3			275.6	575.9	264.6	32.1	.00006
68.	55			270.3	574.6	260.9	33.3	.00036
64.				2.65.0	573.4	258.5	34.6	2000
60.	7.			259.9	572.2	258.4	36.1	0.
57.	8			754.8	570.9	258.3	37.6	1.000057
53.	59.			249.0	569.7	258.9	37.1	20000.
6	5C.			245.0	568.4	259.5	36.5	.00005
146.1	-			230.8	567.5	262.0	35.7	.00005
2	61.			234.7	66.	265.1	33.7	305
39.	-62.4			229.7	5.65.5	C	32.1	0000
•	-63.1			0. 42°	564.6	273.6	29.9	2000

AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION AL	117005	4051.0C FEET	15.		UPPER AIR DISSOCATED TO THE PROPERTY OF THE PR	32		MSTM SIT	C COORDIN
CENSIO	. ON			TAI	ABLE V. (CONT)	•		9 (	02 3.05 FEET
CEOMETRIC	PPESSURE		RATURE	REL . HUM.	¥ 1.1	SPEED OF	ATNO DA	4 -	INDEX
AL TITUDE		AIR	DEWPOINT	PERCENT	CM/CUBIC	CNGOS	IREC	SPEED	30
MSL FEET	MILLIBARS	EES C	_		METER	STONA	REES (T)	KYDIS	REFRACTION
49000.0	132.2	-63.9			226.1	553.6		27.9	.0000
49500.0	129.	9.49-				5	•	25.5	1.000348
50000.0	125	-65.3			210.8	531	166.4	23.4	.0000
50503.3	122.7	-66.1			20 F. 4	560.6	000	22.4	<b>h</b> C000-
51000.0	119	-56.8			202.0	559	256.5	22.3	9000
51500.0		-67.5			-	558.7		22.0	+C000.
52000.0	113	•			193.5	557.	255.8	23.5	,0000.
52500.0	111.0	0.69-					-	24.7	+ CGGGG-
53000.0	108.	-69.1			185.4		•	23.7	,0000.
53500.0	105	- 10.4				63	255.9	21.3	<b>1</b> 000
54000.	103	-70.3			176.9	•	253.0	19.0	0
54500.3	100	- 70.1			172.7	555.1	-	16.8	3
55000.0	9.76	•			168.4	554.3	248.1	14.7	. 2533
55500.0	36	-71.4			164.7	553.4		14.3	33
Ö		•			160.3	553.8	244.3	14.7	.0000
•	90				156.1	554.2		14.7	.00003
ė	88	•			151.9	554.6		14.1	.0003
•	86				147.0	555.1		13.5	.00003
•	84	•			143.9	555.5		12.2	.00003
•					140.1	555.9		10.3	.0003
59000.0	19	6			136.4	556.3		8 • 4	.00003
ė	77				132.8	2.995		6.2	.00003
•	75	•			129.2	557.2	165.5	9.4	.00032
	74.	8			125.8	557.6	6.5	7. 7	.00002
:		-65.8			121.2	560.9	22.	5.4	.00032
00	70.	2			ú	565.9	06.	7.2	.0000
2000-	68	-61.3				567.0	103.7	M. 6	1.000025
2500.	9	-61.2			110.1	567.2	106.5	11.4	.0000
3000	65.					567.3		13.5	.0000
63500.0	63.8	:			104 . 8	567.5	100.9	13.6	.0000

UPPER AIR DATA 1530030732 Jalien TABLE V. (CONT) STATION ALTITUDE 4051.00 FEET MSt 2 JUNE 77 1305 HRS NDT ASCENSI'N NO. 232

LSTM SITE COORDINATES 450451.60 FEET E 454023.05 FEET N

INDEX OF REFRACTION	1.0000123 1.0000021 1.0000021 1.0000021 1.0000118 1.0000114 1.0000114 1.0000114 1.0000113 1.0000113 1.0000113 1.0000113 1.0000113 1.0000113 1.0000113 1.0000113	1.000011
SPEED RYOTS	8 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	11.8
MIND DA DIRECTION DEGREESITAD	111 88 88.7 79.2 71.5 71.5 90.8 11.	
SPEED OF SDUND KNOTS	0.000 0.000	511.5
SENSITY GMZ CUBIC METER	00 00 00 00 00 00 00 00 00 00	5.63 5.63
PERCENT		
PERATURE DEMPOINT CENTIGRADE		
AIR DEGREES		- 53.1
PRESSURE MILLIBARS	00000000000000000000000000000000000000	
SECMETAIC ALTITUDE MSL FEET	645000.0 645000.0 655000.0 665000.0 67000.0 67000.0 67000.0 71500.0 71500.0 71500.0 71500.0 71500.0 71500.0 71500.0 71500.0 71500.0 71500.0 71500.0 71500.0 71500.0 71500.0 71500.0 71500.0 71500.0 71500.0	

LINE 11 1305 HRS MIT

# PSIM SITE COORDINATES 450491.60 FEET E 464023.05 FEET N

# UPPER AIR DAIA 1530030232 JALLEN

454023.05 FEET N	INDEX 0F
2 3	SPEED
	RATURE REL-HUM. MENSITY SPEED OF WIND DATA INDEX DEWPOINT PERCENT SMICUBIC SOUND DIRECTION SPEED OF ENTIREDADE METER WATER PERPARTION
1)	SPEED DE SOUND KNOTS
TABLE V. (CONT)	SHI CUBIC
TA	REL . HUM.
T	TRIC PRESSURE TEMPERATURE REL.HUM. MENSITY SPEED OF TUDE AIP DEWPOINT PERCENT SM/CUBIC SOUND FOR MILITERARY MATER KNOTS
1305 HRS MDT	AID
2.2	TRIC PRESSURE
ISION NO.	TUDE

INDEX OF REFRACTION	1.000011	1.000310	1.000010	1.000010	1.000010	1.000009	1.000009	1.000009	1.000009	1.000009	1,000008	1.000008	1,000008	1.000008	1.000008	1.000001	1.000007	1.000001
SPEED K NOTS	12.1	12.9	13.8	14.2	13.7	13.3	12.9	11.4	5° 5	8.6	7.3	9.9	5.9	5.3				
WIND DAT DEGREES(IN)	87.8	87.7	78.2	76.9	9.00	34.4	38.4	5 · Lo	93.2	96.96	100.3	96.8	92.4	86.8				
SPEED DE SOUND KNOTS	578.1	578.5	579.1	579.7	590.4	5 81 . C	581.6	5.2.5	582.8	5.83.5	584.1	5.04.7	585.3	585.9	586.8	5 2 8 . 0	589.2	5.90.3
SHICUBIC METER	48.2	47.1	45.0	44.7	47.0	42.5	41.5	4 · O a	39.4	5.8 2	37.5	3C.F	35.0	34.8	33.9	33.0	32.1	31.3
REL.HUM. PERCENT																		
TEMPERATURE IN DEMPOINT IEES CENTIGRADE																		
AI? DESREES	-52.9	-52.7	-52.2	-51.7	-51.2	- 50.8	-50.3	8.64-	-49.3	- 48. A	48.4	6.14-	4.74-	-46.9	-46.3	45.4	444.4	-43.5
PRESSURE	30.5	29.8	. 29.1	28.4	27.8	27.2	26.5	25.9	25.3	24.8	24.2	23.6	23.1	22.6	22.1	21.6	21.1	20.6
GEOMETRIC ALTITUDE MSL FEET	79000.0	79500.0	800000	80500.0	81000.0	81500.0	82000.0	82500.3	83000.0	83500.0	84000.0	84500.0	85000.0	85500.0	86000.0	86500.3	87000.0	87500.0

10 N		
STATION ALTITUDE 4051.30 FORT MSL	1305 HRS MDT	272
L		0 N
AL	1	0
STATION	2 JUNE 77	ASCENSION NO. 272

MAYDATORY LEVELS	1530030232	JALLEN	11 11 11 11	IABLE VI.

WSIM SITE COORDINATES #50451.60 FEET E #54023.05 FEET N

PRISSURE 6	EOPOTENTIAL	T E	ATU	1.		DA TA
13496	L. U.	AIR	DEWP	PERCENT	DIRFCTION	SPEED
	j	1				
()	4	9	5.1	25.	172.0	5.0
C	5682.	20.4	1.5	25.	~	2.5
0	5	-	a.c.	.97	2	a. 1
C	10420.	0	-6.5	26.	()	9.4
17	1.3	7.2	-	25.		()
C	14576.	1.4	- 15.4	.7.	(7)	13.
(3	C	15.7	7	49.	-	8.9
500.0	19275.	-10.6	-29.1	20.	200.8	8. 7
$\mathbf{c}$	21914.	-14.7	·	37.	0	7.0
	24811.	4-02-		75.		6 .1
C	28553.	-28.6	9	45.	u	6.2
0	31558.	-37.8	-45.1	46.	8	7.6
250.0	75589.	1 8 8 7			262.6	6.7
0	40338.	-53.8			FO	27.4
5	43157.				C	71.5
()	46357.	- 60.7			a)	36.6
5	50041.	-65.5			3	32.8
CO	54429.	- 70.1			0	16.5
C	58776.	-69.3			3	8.6
	61417.	-61.4			3	7.6
U	64559.	1-60-7			8	11.9
<b>C</b> 1	C8321.	- 56. a			10	9• 9
U	72977.	-55.1			C	6.5
	79037.	- 52.8			-	12.6
5	82931.	-49.1			95.0	2.5

STATION	AL TITUDE	STATION ALTITUDE 4940.00 FEET MSL	1
2 JUNE 77	77	1400 HRS MDT	51.1
ASCENSI	ASCENSION NO. 113	13	TAI

DAIA			
NIFICANI LEVEL	1530040113	STALLION	TABLE VII.

WSTM SITE COORDINATES 403783.00 FEET E 701403.00 FEET N

1 . H U	PERCENT	٥		36.0	5	8	5	.6		9			6	3	9	.6	2.		0	-	3					
RA TU	DEWPOTNT CENTIGRADE			6.5					- 19.4	13.		17.	18.	13.	21.	19.	25.	29.	34.	36.		.6 4				
TEMPE		2			+	2	•	-	9			11.	12.	11.	:	17.	21.	.20	24.	28.	37.	39.	48.	53.	-54.2	55.
GEOME IR	ALTITUDE MSL FEET	0	562	012	0435.	3898.	6147.	7729.	8 2 5 8 .	84 79.	9101.	9318.	9709.	. 96 00	1234.	2867.	4 85 1.	5321.	6131.	7750.	1595.	1991.	5635.	8934.	40395.4	4029.
PRESSURE	LIBAR	0	-	90	00	16.	65.	32.	21.	16.	. 40	00	. 26	. 68	63.	33.	.00	92.	79.	54.	.60	94.	50.	14.	200.0	8 9

STATION ALTITY 2 JUNE 77 ASCENSION NO.	TITUDE 49	- S	EET MSL MDT		UPPER AIR D 153004011 STALLION TABLE VIII.	3 TA		WSTH SITE (403783)	ITE COORDINATES 03783.00 FEET E 01403.00 FEET N
GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMI AIR DEGREES	PERATURE Dewpoint Centigrade	REL . HUN. Percent	DENSITY S GM/CUBIC HETER	PEED OF SOUND KNOTS	WIND DAT DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
0.0464	848.9	31.0	6 ° 8	18.0	968 48	680.6	210.0	14.0	.00024
55000	832.8		10.2	33.6	958.8	677.7	212.3	15.2	1.000266
6500.0	804.4	24.8	9 · 6	35.3	947.3	675.9	215.7	17.4	.00025
7000-0	3.061	23.4	7.5	76.0	924 21	672.6	215.4	17.0	
8000.0	763.1	20.7	6.2	38.6	900.3	659.4	211.9	15.5	•
8500.0	7.9.7	19.4	5.4	39.9	888.7	667.9	208.7	15.1	_
95000	736.5	18.1	r. 5	41.2	877.2	666.3	204.5	14.5	-
100001	710.9	15.4	3.1	43.9	854.8	663.1		13.2	
10500-0	698.3	14.0	2.3	45.2	84369	661.4	191.4	13.1	-
11500.0	673.1	10.1	1.4	0.60	823.1	657.6	189.2	12.7	1.000217
12000.0	6.099		5	50.9	812 .9	655.6	182.5	12.7	1.000209
12500.0	648.8		-1.5	52.8	802:0	53	179.7	12.8	-
13000.0	637.0	8°5	72.6	54.6	793.0	651.7	177.3		1.000201
14000.0	613.9		5.51	59.1	773.5	647.8	164.7	7:1	
14500.0	602.4	1.1	-4.2	61.9	763.1	646.0	150.1	5.6	1.000193
15000.0	591.0	•	-4.2	76.1	152.9	644.2	135.6	5.2	-
15500.0	579.9	-2.0	-4.3	84.3	7421.9	642.4	120.3	4.9	
16000.0	269.0	-3.5	9.41	95.6	733.1	9.049	103.2	4.2	.00018
16500.0	558.1	-4.7	-5.2	95.9	72262	639.2	95.6	3.7	00018
17000.0	547.4	-5.7	-6.1	97.2	711.1	638.0	100.5	3.0	.00017
17500-3	536.9		6.9-	98.4	701.1	636.8	122.5	2.5	00017
18000.0	526.6		-11.1	æ,	0	34	153.3	2.9	•
18500.0	•	- 8 - 8	13	F6.4	•	33	177.1	3.6	00016
19000.0	506.3	-10.2	-13.7	75.2	8.699	632.2	194.4	9.4	.00016

ITE COORDINATES 403783.00 FEET E 101403.00 FEET N	INDEX OF REFRACTION	5 6	1.000151		.000	1000	• •	.0001	-00012	1.000124	.0001	.00011	1.000113	00011		0	.00010	000010	0010	000010	1.000098	60000	.0000	1.000093	.0000
403 403 701	SPEED K NOTS	6.0	7.6	2 .	2.0	2.7	4.2	6.4	5.5	7.1	7.4		9	6.2	6.2	7.0	8.1	6.6	11.7	12.5	13.3	12.6	11.9	12.0	•
	WIND DATA DIRECTION S DEGREES(TN) K	202.3	205.8	197.2	153.1			149.6	155.5	179.6	188.0	195.9	92.	192.6	193.6	197.5	200.9	201.7	202.1	203.7	205.2	208.0	211.3		217.8
13 (T)	S DUND KNOTS	30	673.3	626.3	624.4	623.3	620.3	618.8	611.3	615.9	612.9	611.3	608.2	606.8	605.3	603.8	602.4	6.009	599.4	598.0	595.9	2.465	92.	5 30 . 9	588.2
UPPER AIR DA 1530040113 STALLION TABLE VIII. (CONT)	DENSITY S GM/CUBIC HETER	47.	636.9	617.8			569.1	560.3	21.	542.7	525.7	- 6	500	492.F	4 84 . 4	476.3	•		452.9	45.	438.8	31.	424.1	•	6.604
TABI	REL . HUM . PERCENT	59.5	73.4 61.6	59.7	73.8	78.5	75.0	73.2	66.0	50.1	41.6	# 3.8 	45.1	44.3	45.4	9.04	38.8	37.0	35.2	33.3	30.9**	26.700	22.4	18.2.	13.9.
ISE E	PERATURE DEWPÖINT CENTIGRADE	-17.9	-16.3	-21.0	-20.1	-20-2	-23.1	-24.5	-26.8	-35.8	-34.9	-35.6	-37.3	-38.8	-40.3	-41.7	-43.2	-44.7	-46.2	T. T.	-49.9	-52.3	-24.8	-57.6	8-09-
140.00 FEET	TEMP AIR Degrees	-11.7	-12.6	-14.9	-16.5	-17.4	-19.8	-21.1	-22.2	-24.5	-25.7	-27.0	-29.5	-30.6	-31.8	•	-34-1	- 35.3	-36.4	-37.6	-39.2	-40.5	-41.8	-43.1	0.00-
113	PRESSURE MILLIBARS	496.4	467.7	458.4	440.3	431.5	414.2	4 05 . 8	397.5	381.4	373.5	365.7	350.5	343.0	335.7	328.5	321.4	314.6	307.8	301.2	2.94.7	288.1	281.7	275.4	269.2
STATION RELII 2 JUNE 77 ASCENSION NO	GEOMETRIC ALTITUDE MSL FEET	19500.0	20500-0	21500.0	22500-0	23000-0	24000.0	24500.0	25000-0	25500.0	26500.0	27000:0	28000-0	28500.0	29000.0	29500.0	30000-0	30500.0	31000-0	31500.0	32000.0	32530.0	33000.0		34000.0

\*\* AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

SITE COORDINATES 403783.00 FEET E 701403.00 FEET N	INDEX OF REFRACTION		1.000037	1.000385	1.000083	.0000	.0000	1.000079	.00007	1.000076	.0000	1.000072	1.00001	1.000069	1.000067	1.000066	1.000064	1.000063	1.000062	1.000060
407 107	SPEED KN015	12.1	11.4	11.0	11.7	13.5	15.4	17.5	18.4	19.3	20.2	21.2	23.5	26.1	27.9	29.6				
	MIND DATA DIRECTION S DEGREESITN) K	219.9	227.8	235.3	251.0	6.496	273.3	8.617	278.2	275.0	274.2	272.5	272.8	273.4	271.7	269.5				
13 T)	SPEED OF S DUND K N O T S	587.6	585.9	583.1	582.C	581.0	580.0	2.2.0	578.0	577.1	576.9	576.6	576.4	576.1	5 75.9	575.6	575.3	575.0	574.8	574.5
UPPER AIR DATA 1530040113 STALLION TABLE VIII. (CONT)	DENSITY S GM/CUBIC HETER	403.0	396.3	382.3	374.7	367.4	360.1	353.0	346.1	339.2	331.5	324.0	316.7	304.6	302.6	295.8	289.1	282 . 6	2.912	210.0
TABI	REL.HUM. PERCENT	9.7.	1.2**																	
T MSL	TEMPERATURE R DEWPOINT EES CENTIGRADE	9.49-	-69.7																	
940.00 FEET 1400 HRS MDT	TEMP AIR DEGREES	-45.7	-48.3	-49.2	6 . 6 4 -	- 50.7	-51.5	5.76-	-53.0	-53.7	-53.9	-54.1	- 54 . 2	-54.4	-54.7	-54.9	- 55.1		-55.5	-55.7
113	PRESSURE MILLIBARS	263.2	251.3	245.8	240.1	234.6	229.2	6.627	218.7	213.6	238.6	203.8	199.0	194.3	189.8	185.3	181.0	176.7	172.6	168.5
STATION ALTIT 2 JUNE 77 ASCENSION NO.	GEOMETRIC ALTITUDE MSL FEET	34500.0	35500.0	38000.0	36500.0	37000.0	37500.0	30000	38500-0	39000-0	39500-0	0.0000	40500.0	41000.0	41500.0	42000.0	42500.0	43000.0	43500.0	44000.0

AT LEAST ONE ASSUMED RELATIVE MUMIDITY VALUE WAS USED IN THE INTERPOLATION. :

ON ALTI	UDE	STATION ALTITUDE 4945.00 FEET MSL	FEET	ISE.
2 JUNE 77		1400 HRS MDT	IS MDT	

	3		
MANDATORY LEVELS	1530040113	STALLION	TABLE IX.

u	ш	z
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C	3	٣.
	æ	C
L	-	3
-	3	-
-	0	C
S	3	-
2		
-		
is		
3		
-		

:	12														
ATA	KNOTS	17.6	15.1	13.2	12.8	5.5	. X.	5.5	2.4	5.3	6.3	12.6	11.3	22.9	
WIND DATA	DEGREES(IN)	215.9	708.7	191.7	179.9	147.2	98.3	200.6	182.8	153.8	192.7	204.0	229.7	272.6	
REL . HUM.	אב א כב א	36.	40.	45.	53.	70.	07.	.09	, 9y	72.	.94	33.			
TEMPERATURE	CFNTIGRADE	9.2	5.5	2.5	-1.4	-4.2	6.5-	-17.6	-20.5	-25.6	-37.4	-48.0			
:	DESREES	24.0	19.0	14.2	7.6		-5-4	-11.4	-15.7	-21.9	-29.5	-37.8	-48.5	-54.2	-55.4
GEOPOTENTIAL	FEET	6659	8498.	10429.	12459.	14598.	16866.	19298.	21933.	24818.	27995.	31543.	35569.	40311.	43113.
PRESSURE GE	MILLIBARS	800.0	750.0	700.0	650.0	600.0	550.0	20000	450.0	400.0	350.0	300.0	250.0	200.0	175.0

AT LEAST ONE ASSUNED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

L FVEL 20441 SANDS X.				
- U	DAIA			
	SIGNIFICANT L FVEL	1530020441	WHITE SANDS	TABLE X.

WSTM SITE COORDINATES 488580.00 FEET E 185045.00 FEET N

REL . HUM. PERCENT	24 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	*
RATURE DEWPOINT CENTIGRAD	4 4 5 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	
ATA ATA DESPEES	7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3
E GEOMETAIC ALTITUDE S MSL FEET	3989.0 4187.6 4187.6 4187.2 10449.0 11719.5 14444.3 15.905.6 17251.7 18415.4 18415.4 2050.6 21379.7 221379.7 221379.7 23858.6 24895.1 29741.2 29741.2 29741.2 40559.9	335 335 1775 384
PRESSURE MILLTBARS	$\begin{array}{c} 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 \\ 0 & 0 &$	20000

STATION ALTITUDE 1989.CC FEET MSL 2 JUNE 77 15CENSION NO. 441

TABLE X. (CONT)

REL . HUM. PERCENT

TEMPERATURE AIR DEMPOINT DEOREES CENTIORADE

PRESSURE GEOMETRIC ALTITUDE MILLIBARS MSL FEET

58.8 55273.0 53.3 67300.7 50.0 58692.5 37.3 74778.3 30.0 79395.3 20.0 88215.1 15.8 98953.4 10.0 103704.5

STATION AL 2 JUNE 77 ASCENSION	STATEON ALTITUDE 3989.3 2 June 77 Ascension no. 441	JC FE HRS M	er vst or		JPPER AIR DA 1530020441 WHITE SANDS TABLE XI.	4		13 M T S M T S M T 8 8 M T 8 8 M T 8 8 M T	TE 000P)INATE: 8580.00 FEET E 85945.00 FELT
GECMETALC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR DEGREES	PERATURE DEAPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY SP GM/CUBIC S MF1ER H	PEED OF SDUND KNOTS	WIND DA DIRECTION DESREESITN)	SPEED	INDEX OF RFF RACTION
3.989.7	876.0	36.5	c 6.	14.0	983.5	686.8	240.0	9.0	.00025
4500.0 5000.0		71.1	W 10	12.0	984.5	6.80.7	107.9	2.0	2000
5530.3		27.1	2.2	2r.c	964.3	674.5		5.5	450004
6520.3		24.3	- PO (	22.1	0.040	673.0	2.291	6	.00023
7500.0		22.9	n =	74.6	927.9	659.7	162.2	8.4	1.000232
8560.0		18.6		25.9	4.466	658.1		8.3	1.000228
9000.0			-1.3	78.4	•	8.453	152.4	7.8	.00022
10000.	723.9	14.4	-2.6	9.0	859.4	661.5	162.7	7.3	1.000218
10500.0	698.7	12.9	-3.3	32.2	848.6	657.9		C) 0	1.000211
11500.0		9.1	6.4-	35.3	827.7	656.0	160.6	œ .	.00020
12500.0	661.4	8.2 6.8	-5.1	38.3	816.9	654.2	161.3	9 · v	1.000202
13600.0	637.2	a C	2.5-	16.3	795.0	651.0	163.2	4.9	1.000197
14000.0		2.6	1.5.7	4.4	173.7	647.7	167.9	6.3	.00019
14560.0		1.2	-6.4	5	763.4	3.949	165.7	5.5	.00019
15500-0	580.0	-1-3	-13.3		742.2	647.8	160.4	6.6	0
16000.0		-2.5	-17.3	7.1	721.8	641.2		6.9	.00017
16500.0		-3.6	-17.5	23	120.1	0.049	161.6	6.2	0016
17000.3	547	-4.7	-17.7	S. 1			•	. s	
18033.	526.8	9-9-	- 25- 5	30.3	5.98°,	637.4	122.3	6.4	1.000162

vi w z

E COORDINATES SEO.OD FEET E 1045.OD FEET N	INDEX DF REFRACTION	1.000156	1.000156	.00015	7	.00014	.00014	•	m	00013	M	.00013	2	.00012	00012	21000	.00012	.00011	-	.0001	00011	-	.00015	.00010	01000	.00010	00000	.00010	90000	.0000	90000
4085 1850	SPEED KNOTS	7.5	8.2	· · ·	7.9	6.3	5.2	u . 7	3.5	3.3	4.3	5.8	7.4	8 . 3	8.1	7.8	7.2	6 • 2	5.3	4.1	3.5	3.4	0.4	5.3	6.8	8.5	6.0	9.4	8.8	7.5	7.0
	WIND DA DIRECTION DEGRESSITMI	. 113.1	108.2	106.7	108.7	114.5	123.2	136.2	w	6.1	147.2	37	139.7	146.7		-	186.4	187.0	86.	191.0	198.4	07.	205.2	8	187.7			6		CA	•
2414 91 05 CONT)	SOUND KNOTS	634.5	C	23	671.2	6.70.6	6 30.0	629.2	6.28.C	8.963	F.75.1	623.4	F 21.3	1.003	619.5	618.0	516.5	615.€	613.5	512.C	610.5	6.800	F07.4	8.32.8	604.1	6.23.4	600.7	5.89.0	-	5.965	
ISSCOSCANDA HITE SANDATABLE XI. (CO	DENSITY S CHJCUBIC METER	678.3	9.839	158.1	•	634.6				m	2	. 3	567.7	7		01	÷	2		506.4	-	4.06 4	82.	475.1		6.3	452.7	45	437.8	•	7021
	REI . HUM.	18°	42.6	47.3	32.6	18.1	77.8	27.8	29.5	26.2	27.1	28.5	20.3	-		-		•	_		_		-	7.05	26.9	•	2.7.	27.3	25.8**	22.300	18.9.
) (F	ERAILRE DEAPOINT GENTIGRADE	-23.1	-19.8	-19.6	-24.1	-33.7	-26.6		-27.5	-29.6	- 30.4	-31.2	-32.3	C. 42 -	-75.5	- 36 .0	-36.6	-11.2	-37.8	-38.5	- 30 - 1	1.9.3	9.04-	-42.9	- 45.6	5.54-	-47.5	-48.6	- 50.2	-57.0	- 50.7
3989.00 FEET 1410 HRS MDT	AIR PECREES		n.6-	0		-	÷	•	ĸ.	:	'n	7	ά.	•	-	•		:	-25.2		•		•	-	•	:	- 35 . 4	-36.7	-	•	
ALTITURE 398 37 14 14 14	PRCSSUME MILLIDARS	٠ ت	5.00.5	00	436.9	4.77.4	D • 85 h	458.8	1.8.1	443.8	#32 · B	453.4	414.9	436.5	398.2	390.0	381.9	374.0	366.3	358.7	351.3	344.0	328.9	379.7	322.7	315.8	309.0	(1	1.5	5	0.
STATION AL 2 JUNE 17 ASCENSION	SECMETRIC ALTITUDE MSL FEET	00	36	9500.	ċ	00	ċ		-		120		24000.0				-	-		-		-				500.	00	500.	2000.	25.00.	

AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE KAS USED IN THE INTERPOLATION.

JPFER AIR DATE	1730020441	WHITE SANDS	TABLE XI. (CONT)
CPFEX	17.5	11111	TABLE
	134		
	STATION NITITUDE 1989.00 FILL HIS	1410 HRS MDT	
	TITUDE 7		SCENSION NO. BET
	STATION	2 JUNE 77	SCENSIO

SING COORDINATES	INDEX
488580.00 FEFT E	OF
185045.00 FEET N	FRACTION
WSTM SING COORDINATES 488580.00 FEFT E 185045.00 FEET N	35
1730020441	TEMPERATURE RELIGIONAL DENSITY SPESO DE WIND DATA
WMITE SANDS	AIR DEAPOINT PERCENT CHZOUBIC SOUND DIRECTION SPEED
TABLE XI. (CONT)	CORTES CENTGORADE METER KNOTS DECREESITN) KNOTS
JOE 7989.00 FILT 451 1410 HRS MDT 441	ISSURE TEMPERATURE AIR DEAPOINT IRARS DEGREES CENTIGRADE

GECMETPIC ALTITUDE	PRESSURE	-	ERATURE DEAPOI	PISCENT	OE NSIIY	SPEED OF	WIND IRECTION	SPEE	TNOCX
11.1	MILL IBARS	DEGRIES	CENTIORADE		METER	KNOTS	DECREESITAL	KNOTS	REFRACTION
.00	-	4.1	-51.7	15.500	-	5.59.5	234.5	6.9	.0000
34000.0	270.4	-42.2	D.09-	12.0	407.8	592.1	01	9.2	000
.00		43.	P. E3 -	8 . 6 .	0	5 90 . 7	2,012	16.7	*C000*
.000	2.850	. 11	6.13-	5.7**	1	4.687	274.4	2. 22	.00000
500.	252.8	-45.4	-76.1	1.7**	7.86.6		217.4	27.1	.00008
.00	247.1				•	1.383	280.1	26.6	• nons
500.	241.5	-47.2					284.9	20.0	.00008
.00	136.0	9			365.2		286.1	15.5	.0003
SOC.	236.6	3				583	278.9	13.1	.00003
.000	225.4	1.64-			351.4	5.82.3	271.8	12.5	1.000378
500.	225.2				344.7	581.2	268.1	13.8	.0000.
.000	215.1	-51.2			337.6	5 80 . 4	267.4	15.1	.0000
500.	210.2	-			370.5	578.9	263.8	16.2	1.000074
.000	205.3				323.4	519.3	272.0	18.0	1.000372
500.	9.307	C			316.6	578.8	273.9	50.9	. ocno
1200.	195.9	53			310.3	577.8	275.2	23.5	1.000369
1500.	191.3	7			304 - 1	576.7	276.2	26.2	.00006
-	186.9	24			798.1	575.7	275.0	28.5	1.000066
2500.	182.5	-			290.0		274.9	30.8	, naba
.00	178.2	54			283.6		272.8	32.4	• 00036
3500.	174.0				2.16.5		259.3	33.3	.00000
4000 ·	159.9	#			271.0		266.0	34.3	90000
4500.	165.3	S			765.6		263.2	35.3	1.000059
5000.	162.0	56			260.3		260.8	36.4	.00005
5500.	158.7	37			755 - 1		259.4	37.2	005
46000.0	154.4	æ			250.0	571.4	258.2	38.0	.00005
6500.	150.8	5.8			245.1	576.3	259.7	36.0	100
7000.	147.1	-59.7			240.1	569.2	261.5	34.0	9000
7500.	143.6	C			235 • 3	568.0	63	30.7	.0000
.000	140.1	-61.5			230.5	5.66.8	264.5	27.5	1.000051

AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTO RP DLATION.

CODROINATES 80.00 FEST E	INDEX 0F REFRACTION	0000.	000		200	0000	.0000		0000.	1.000031	0000.	.0000	0007	1.000024
4885 4885 3850	SPEED MANDES	24.1	mm	27.0	5 8	œ œ	2001	2	 	46	30	M. W.	7.5	2.5
	SIRCCIION DEGREESTIN	0.0	10 00	V 3 W	0 -	C: W	NO	D = 3	a a			m O	112.7	-
P A1 A 14 1 ND S (CONT)	S GUND S GUND KN012	565.6 564.4	50.	558.5	5 6	5.5	53	2 2 2 Z	54	555.2	5 5	9 6	9 2 2	565.6
JPFER AIR D 1530020447 WHITE SAND TABLE XI. (CC	OMZ CUBIC	225.7	12				77	153.2	MOL	137 - 8	130.7		114.5	
	REL.HUM.													
O HRS NDT	TEMPERATURE AID DEVODINI COREES CENTIRRADE	-52.4 -53.3 -54.2	5 5	0 7 0	00 00	CC	111	171	2707	-70.0 -59.8	6.9	07 ~	553	2 5
117852 3989.5 1410 40. 401	PP CS CURE	(0 10 0	23.9	ω σ σ	12.0	-T CJ	(1 15 -	- r r	0 00 0	្រែម	3 10	<b>ာ</b> စ		1.69
STATION ALTE 2 JUNE 77 ASCENSION NO	GEOMETRIC ALTITUDE MSL FEET	48500.0 49000.0	500.	100.	500.	500.	500.	500.	500.	500	0000	1500.	.000	scno.

Mail		360.	3939.00 FEET 451		-	0 A T A		MSIM SIT	ROINATE
FRESSURE NEW DEATHURE BOTT-MUM, DENETTY SPEED OF BOTT-BARBOR DEATHURE DEATHURE SPEED OF BOTT-BARBOR DEATHURE SPEED OF BOTT-BARBOR DEATHUR BOTT-BARBOR DEATHUR BARBOR DEATHU	C	441			WHITE SAME	ONT)		185	FEE
### SECTIONS ROLLHUM DINESTITY SPECO OF WAYD DATA IN MILLIBARS DEORGE CONTIONAL RETEN CHANNE DESCRIVING MOUS REFORM MILLIBARS DEORGE CONTIONAL RETEN CHANNE DESCRIVING MOUS REFORM 11.4 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3									
### DEMONINT PRICENT CHINDS CHIND DIRECTION SPEED ###################################	METOIC	RISSUL	MP SRATURE	F. HUM	YLISM DC	PEED	E CN LA	-	XLONI
######################################	11001		IR DEAPOINT	Lake	M/CUBI	SCUND	DIRECTION	SPEED	0 F
64.7       -62.6         62.6       -62.6         61.1       -62.6         62.6       -62.9         61.1       -62.6         56.2       -62.6         56.2       -62.6         56.2       -62.6         56.2       -62.6         56.2       -62.6         56.2       -62.7         56.3       -62.6         56.4       -62.6         56.7       -62.6         56.8       -62.7         56.1       -62.6         56.2       -62.6         56.3       -62.6         56.4       -62.6         56.7       -62.6         40.7       -62.7         40.8       -62.8         40.8       -62.9         40.8       -62.9         40.8       -62.9         40.9       -73.0         40.8       -73.1         40.8       -73.2         40.8       -73.4         40.9       -73.4         40.9       -73.4         40.9       -73.4         40.9       -73.4         40.9       -73.4	FEET	1111848	ESREES CENTIORAD		8:11 B	KEDIS	ESREESITA	KNOTS	SFRACTI 0
62.6       -62.9       103.7       565.C       109.8       11.4         59.6       -7.2       90.0       564.8       118.4       10.3         56.2       -7.2       90.0       564.8       118.4       10.3         56.8       -7.2       96.2       565.4       127.4       9.5         55.4       -56.2       96.2       565.4       127.4       9.5         51.6       -56.2       84.7       96.2       124.1       11.6       11.6         51.6       -56.2       84.7       96.2       124.1       11.6 </td <td>3500.0</td> <td></td> <td>10</td> <td></td> <td></td> <td>47</td> <td>•</td> <td>0</td> <td>1.00001</td>	3500.0		10			47	•	0	1.00001
56.4       -53.0         56.8       -57.2         56.8       -57.2         56.8       -57.2         56.8       -57.2         56.8       -57.2         57.4       124.1         55.4       125.2         57.4       124.1         57.8       124.1         57.8       124.1         57.8       124.1         57.8       124.1         57.9       124.1         57.0       124.1         57.1       572.5         46.2       84.7         46.3       573.9         46.9       -56.2         46.9       -56.2         46.9       -56.2         46.9       -75.2         46.9       -75.2         46.9       -75.2         46.9       -76.2         46.9       -75.2         46.9       -75.4         47.6       -75.3         47.6       -7.1         47.6       -7.2         47.6       -7.2         47.6       -7.2         47.6       -7.2         47.6       -7.2	4000.0	52.6	2		03.	5		11.4	
59.6         -67.2         93.9         564.5         127.4         9.4           56.2         -62.5         96.2         565.4         127.4         9.5           56.4         -57.2         127.4         9.5         1           56.4         -57.2         127.4         1         1           56.4         -57.2         127.4         1         1           57.8         -56.1         84.7         572.5         124.1         10.2           51.6         -56.2         84.7         573.9         124.2         1           51.6         -56.2         80.3         124.2         1         10.3           40.7         -56.2         70.0         73.7         81.5         6.1         1           40.6         -56.4         70.0         73.6         73.6         7.2         1           40.7         -56.4         70.0         73.7         81.5         6.1         1           40.6         -56.4         70.0         73.6         7.2         1         1           40.6         -56.7         70.0         73.7         1         4.4         1           40.6         -56.7	4500.3	61.1	-		0	564	-	10.3	
56.2         -62.5         96.2         565.4         127.4         9.5           55.4         -57.2         124.1         10.2         10.2           55.4         -57.2         124.1         10.2         10.2           51.6         -56.2         84.7         573.9         124.1         10.2           51.6         -56.2         80.3         873.9         124.1         11.6         11.6           51.6         -56.2         80.3         873.9         124.2         12.9         11.6 <td< td=""><td>- 63088 - 1</td><td>5.00</td><td></td><td></td><td>93.9</td><td>564</td><td></td><td>4.0</td><td></td></td<>	- 63088 - 1	5.00			93.9	564		4.0	
55.8       -50.7         55.4       -56.2         50.4       -56.2         50.4       -56.2         51.6       -56.2         51.6       -56.2         51.6       -56.2         51.6       -56.2         51.6       -56.2         51.6       -56.2         46.9       -56.2         46.9       -56.4         46.9       -56.4         46.9       -56.4         46.9       -56.4         46.9       -56.4         46.9       -56.4         46.9       -56.4         46.9       -57.4         47.6       -57.4         47.6       -57.4         47.6       -57.4         47.6       -57.4         47.6       -57.4         47.7       -57.4         47.7       -57.4         47.7       -57.4         47.7       -57.4         47.7       -57.4         47.7       -57.4         47.7       -57.4         47.4       -57.4         47.4       -57.4         47.4       -57.4	5500.3	58.2	-		2.96	565		6.5	
55.4       -56.2         56.1       -57.2       124.1       10.2         51.6       -56.2       84.7       573.9       124.1       11.6         51.6       -56.2       86.7       124.1       11.6       11.6         50.3       -56.2       86.7       11.6       12.9       11.6       11.6         46.9       -56.4       77.1       73.7       81.5       6.1       11.6       12.9	3.00095	56.8	-		93.1		125.2	9.5	
54.1       -57.2       572.5       124.1       11.6       11.6         52.8       -56.2       84.7       573.9       124.2       12.9	6.500.0	55.4	-		90.1		124.1	10.3	
52.8       -56.1         51.6       -56.2         51.6       -56.2         46.2       -56.2         46.2       -56.2         46.3       -56.4         46.9       -56.4         46.9       -56.4         46.9       -56.4         46.9       -56.4         47.6       -56.9         47.7       -57.0         47.6       -56.9         47.7       -57.0         47.6       -56.9         47.7       -57.0         47.6       -57.0         47.7       -57.1         47.8       -57.2         47.1       -57.2         47.1       -57.2         47.1       -57.2         47.1       -57.2         47.1       -57.2         47.1       -57.2         57.1       -57.2         57.2       -57.2         57.2       -57.2         57.2       -57.2         57.2       -57.2         57.2       -57.2         57.2       -57.2         57.2       -57.2         57.2       -57.2	70007	54.1	-57.2		P7.2		124.1	11.6	
51.6       -56.2       82.8       573.9       115.7       10.1         56.3       -56.2       80.3       573.8       99.9       7.5         48.0       -56.4       77.1       77.1       77.1       77.1       77.1         48.0       -56.4       77.1       77.1       77.1       77.1       77.1       77.1         48.0       -56.7       77.1       77.1       4.6       77.1       4.6       17.1       17.1       4.6       17.1       17.1       4.6       17.1       17.1       4.6       17.1       17.1       4.6       17.1       17.2       17.2       17.2       17.2       17.2       17.2 <t< td=""><td>175CC.C</td><td>52.8</td><td>9 9</td><td></td><td>84.7</td><td></td><td>124.2</td><td>12.9</td><td></td></t<>	175CC.C	52.8	9 9		84.7		124.2	12.9	
\$6.3       \$6.3       \$6.4         \$6.4       \$7.3       \$7.3       \$1.5	8000.0	51.6	99		8.2.8		115.7	10.1	
49.2       -56.4         48.0       -56.4         48.0       -56.4         48.0       -56.4         48.0       -56.4         48.0       -56.4         48.1       -56.4         48.1       -56.7         48.1       -56.7         48.2       -56.7         48.2       -56.8         48.2       -56.9         48.2       -57.0         48.2       -57.0         48.2       -57.0         48.3       -57.2         48.4       -57.2         48.5       -57.2         48.6       -57.2         48.6       -57.2         48.6       -57.2         48.6       -57.2         48.6       -57.2         48.6       -57.2         48.6       -57.2         48.6       -57.2         48.6       -57.2         58.7       -57.2         58.9       -57.2         58.4       -57.2         58.4       -57.2         58.4       -57.2         58.4       -57.2         58.4       -57.2	8500.0	50.3			80.3		6 . 66	7.5	
48.0       -56.4         46.9       -56.4         46.9       -56.4         47.1       573.5       62.9       5.5         44.7       -56.7       77.3       4.4       1.         44.7       -56.6       4.4       1.       4.4       1.         43.6       -56.7       70.2       573.3       4.4       1.         43.6       -56.7       70.2       573.3       4.4       1.         42.6       -56.7       70.2       573.3       115.3       4.4       1.         42.6       -56.3       67.0       572.9       115.0       3.4       1.         40.6       -57.0       67.0       572.9       117.6       3.3       1.         36.1       -57.2       62.4       572.9       109.9       3.4       1.         37.0       -57.2       62.4       572.9       109.9       3.4       1.         36.1       -57.2       57.2       109.9       3.4       1.         37.1       -56.3       57.2       109.9       5.7       1.         37.4       -56.3       57.2       57.2       1.       1.         37	90000	2.04			79.0		81.5	6.1	
46.9       -56.4         45.8       -55.5         45.8       -55.5         44.7       -56.6         44.7       -56.7         47.6       -573.2         47.6       -56.9         47.6       -56.9         47.6       -56.9         47.6       -56.9         47.6       -573.0         47.6       -572.9         47.6       -572.9         47.7       4.0         47.1       -57.2         39.6       -57.1         40.6       -57.1         40.6       -57.2         37.0       -57.2         36.1       -57.2         37.0       -57.2         37.0       -57.2         37.1       -57.3         37.1       -57.3         37.2       109.9         37.4       -57.3         37.4       -57.3         37.4       -57.3         37.4       -57.3         37.4       -57.3         37.4       -57.3         37.4       -57.3         37.4       -57.3         37.4       -57.3	0.0036	0.34			77.1		17.9	3.6	
45.8       -55.5         44.7       -56.6         43.6       -56.7         42.6       -56.9         42.6       -56.9         42.6       -56.9         42.6       -57.0         40.6       -57.0         40.6       -57.0         40.7       -57.1         40.6       -57.2         40.6       -57.1         40.6       -57.2	0.0000	46.9			75.3		65.0	5.7	
44.7       -56.6       4.44       11.0       573.3       99.6       4.44       11         43.6       -56.8       67.0       573.0       116.3       4.6       11         42.6       -56.9       67.0       572.9       117.6       3.5       1         40.6       -57.0       67.0       572.7       107.0       3.3       1         36.9       -57.2       62.4       572.7       3.4       1         37.0       -57.2       62.4       572.7       3.4       1         36.9       -57.0       57.2       107.0       3.4       1         36.1       -56.3       57.2       109.9       3.4       1         36.1       -56.3       57.2       119.8       5.7       1         35.6       -55.6       57.2       119.8       5.7       1         35.6       -55.6       57.2       119.8       5.7       1         35.6       -55.6       57.2       116.9       6.8       1         35.6       -55.6       57.2       116.9       6.8       1         35.6       -55.6       57.2       109.7       1       1	C200.n	45.8			13.5		17.1	u •	
43.6       -56.7       4.5       115.3       4.5       1         42.6       -56.8       67.0       572.9       112.5       3.5       1         40.6       -57.0       67.0       572.9       122.5       3.5       1         40.6       -57.0       67.0       572.7       107.0       3.3       1         37.0       -57.1       62.4       572.7       107.0       3.1       1         36.9       -57.7       62.4       572.4       109.9       3.4       1         36.9       -57.7       57.2       109.9       3.4       1         36.9       -57.7       57.9       57.9       57.9       3.8       1         36.9       -57.0       57.9       57.9       57.9       57.9       57.9       1         36.9       -57.6       57.9       57.9       57.9       57.1       1       5.7       1         36.9       -55.6       55.7       116.9       5.7       1       5.7       1         32.6       -55.6       57.6       109.7       7.9       1         32.6       -53.6       57.6       109.7       7.9       1 <td>1000.</td> <td>44.7</td> <td></td> <td></td> <td>71.0</td> <td></td> <td>9.66</td> <td>4.4</td> <td></td>	1000.	44.7			71.0		9.66	4.4	
1.3       42.6       -56.8         1.4       -56.9       67.0       572.9       122.5       3.5         1.5       -57.0       67.0       572.9       122.5       3.5       1         1.5       -57.1       65.4       572.7       107.0       3.3       1         1.0       38.7       -57.2       62.4       572.7       107.0       3.1       1         1.0       38.9       -57.3       57.2       62.4       572.4       109.9       3.4       1         1.0       36.1       -57.2       57.2       109.9       3.4       1         1.0       36.1       -57.2       57.4       109.9       3.8       1         1.0       36.1       -57.2       57.4       109.9       3.8       1         1.0       36.1       57.9       57.9       57.9       57.1       1         1.0       32.6       -54.2       57.9       57.5       1       1         1.0       -53.6       -53.6       109.7       7.9       1         1.0       -52.9       57.2       57.1       57.2       1         1.0       -52.6       57.2 <td< td=""><td>1560.0</td><td>4.7.5</td><td></td><td></td><td>70.2</td><td></td><td>115.3</td><td>£ • 5</td><td></td></td<>	1560.0	4.7.5			70.2		115.3	£ • 5	
3.0     43.6     -56.9     67.0     572.9     122.5     3.5     1       3.0     39.6     -57.1     65.4     572.7     107.0     3.1     1       3.0     37.2     -57.2     62.4     572.7     107.0     3.1     1       3.0     37.2     -57.2     62.4     572.5     66.3     3.4     1       3.0     36.9     -57.2     57.2     109.9     3.4     1       3.0     36.1     -56.3     57.9     57.9     57.9     121.0     3.8     1       3.0     36.1     -56.3     57.9     57.9     57.9     57.9     57.9     1       3.4     -55.0     55.0     57.9     57.9     57.9     57.9     57.9     57.9       3.0     32.6     -54.2     57.9     57.9     57.9     57.9     57.9     57.9       3.0     32.6     -54.2     57.9     57.9     57.9     57.9     57.9     57.9       3.0     -52.6     -53.6     -53.6     -53.6     -53.6     -53.6     -53.6     -53.6     -53.6     -53.6     -53.6     -53.6     -53.6     -53.6     -53.6     -53.6     -53.6     -53.6     -53.6     -53.6 </td <td>2.0002</td> <td>42.6</td> <td>-56.8</td> <td></td> <td>68.6</td> <td></td> <td>110.1</td> <td>0.4</td> <td></td>	2.0002	42.6	-56.8		68.6		110.1	0.4	
39.6       -57.0       65.4       572.8       117.6       3.3       1         30.0       39.6       -57.1       62.4       572.7       107.0       3.1       1         37.0       -57.2       57.2       62.4       572.5       96.3       3.1       1         36.1       -57.2       57.2       109.9       3.4       1         36.1       -56.3       57.0       57.9       572.8       121.0       3.8       1         36.1       -56.3       55.6       57.9       57.9       57.9       57.9       57.9       57.1       1         36.1       -56.3       55.6       57.9       57.9       57.9       57.9       57.9       57.9       57.9       57.1       1       5.7	2500.0	11.6	-56.9		67.0		122.5	3.5	
39.6 -57.1 3.1 107.0 3.1 11.0 57.7 107.0 3.1 11.0 57.7 107.0 3.1 11.0 57.7 107.0 3.1 11.0 57.7 107.0 3.1 11.0 57.7 107.0 3.1 11.0 57.2 57.2 57.2 109.9 3.4 11.0 56.3 3.1 11.0 56.3 3.4 11.0 56.3 3.4 11.0 56.3 3.4 11.0 56.3 3.4 11.0 57.0 57.0 57.4 57.2 121.0 3.8 11.0 57.0 57.0 57.0 57.0 57.0 57.0 57.0 57	3000.3	40.0	-57.0		65.4		117.6	3.3	
50.7 37.8 -57.7 57.7 62.4 572.5 96.3 3.1 1. 3.1 3.1 3.2 37.8 -57.7 57.8 51.0 572.4 109.9 3.4 1. 3.8 3.0 35.1 -56.3 3.4 1. 3.8 3.4 1. 3.0 35.1 -56.3 3.8 3.8 3.8 3.0 35.1 -56.3 5.0 55.6 55.0 55.7 1. 55.0 55.0 55.0 55.0 55.0 55.0 55.0 5	3500.0	39.8	-57.1		63.9	515	107.0	3.1	
37.0     -57.3       36.9     -57.0       36.9     -57.0       36.1     -56.3       3.0     36.1       36.1     -56.3       3.0     36.1       36.1     -56.3       3.0     35.6       36.1     -56.3       37.0     37.6       37.0     37.6       32.0     -53.6       32.0     -52.9       32.1     57.2       57.2     57.2       57.2     116.2       6.8     1       1.0     1.0 </td <td>4000h</td> <td>55.7</td> <td>-57.2</td> <td></td> <td>62.4</td> <td>572</td> <td>2.90</td> <td>3.1</td> <td></td>	4000h	55.7	-57.2		62.4	572	2.90	3.1	
36.9 -57.0 36.4 121.0 3.8 1. 36.1 -56.3 57.9 573.7 124.2 4.6 1.0 55.7 1.0 5.7 1.0 5.7 1.0 5.7 1.0 5.7 1.0 5.7 1.0 5.7 1.0 5.7 1.0 5.7 1.0 5.7 1.0 5.7 1.0 5.7 1.0 5.7 1.0 5.7 1.0 5.7 1.0 5.0 5.7 1.0	4500.7	37.3	-57.3		61.0	572	104.9	3.4	
0.0     36.1     -56.3     4.6       3.0     35.7     -55.6     5.7       0.0     34.4     -55.0     5.7       0.0     33.6     -54.2     57.5       0.0     32.6     -53.6       0.0     32.0     -53.6       0.0     32.0     -52.9       0.0     -52.9       0.0     -52.9       0.0     -52.9       0.0     -52.9	5000.0	36.9	-57.0		50.5	572	121.0	3.8	
100.5 35.7 -55.6 5.7 1. 500.0 34.4 -55.0 6.8 1 100.0 35.6 -54.2 5.6 5.8 109.7 7.9 1. 500.0 32.8 -53.6 52.1 577.2 102.9 9.7 1. 100.0 32.0 -52.9 10.6 1.	5500.0	36.1	-56.3		57.9		124.2	4.5	
500.0 33.6 -54.2 6.8 1. 500.0 32.6 -54.2 7.9 1. 500.0 32.6 -53.6 52.1 577.2 102.0 9.7 1. 500.0 32.0 -52.9 52.9	009	25.2	-55.6		50.4		119.8	5.1	
55.5 576.4 109.7 7.9 1. 550.0 32.8 -53.6 52.1 577.2 162.9 9.7 1 500.0 32.0 -52.9 52.9	5	34.4	55.		54.9	575	-	6.8	
5500.0 32.8 -53.6 52.1 577.2 162.9 9.7 1 100.0 32.0 -52.9 52.9 55.7 578.2 98.0 10.6 1.	0	33.6	54.		53.5	5.76	109.7	7.9	
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TE COONDINATES 8580-00 FEET E 5045-00 FEET N	INDEX OF REFRACTION	. 0000	(1)	00000	geoou.	0000	00000	.00000	00000	.0000	00000	. nana		00000	.00000	20000.	.0000	00000.	.00000	000000	.0000	20000	.00000	00000	.00000	00000	.00000
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	JAND DE DE SERES (TR.)	-	117.0	1	1.5	13	07		30		7	7	127.1	.2	95.1	79.1	75.9	1.58	91.9	100.0							
34 14 441 N3 S (CONT)	PCED OF SOUND RROIS	586.0	5.96.5	-	00	-	-	92.	5 94.1	9.5	2.965	9	5.96.7	36	8	96	9	96	596.	595.9	. 50	5.5.7	99	5	50	595.1	0
UPPER A19 D 1530026447 WHITE SAND TABLE XI. (CC	DENSITY S OH/CUBIC METER	24.2	1-3	1.3	CJ	-			27.1	C	C	a	13.5		17.5	-	C	w	-	15.7	15.4	15.0	14.7		14.1	13.0	13.5
	Prprevi																										
1410 HRS NDT	ICMPERATURE AIR BEUPOINT CORFES CENTIGRADE	6.96-	46.5	-45.5	-	5.24-		-41.6		•	-38.€		-38.5	36.7	-38.7	3.85.	6.8.	39.0	•	-	-39.3	-	•	39.	6	39.	6
#LTITUDE 3980.8 77 7 NO. 991	PRESSURE MILISKRS DE	15.7	15.4	0.0		14.4			13.4		5.0	5.5	~	0	11.3	5		0.	.3	Li.	٠.		6.	- 1.6	7.	9.2	c.
STATTON BLT 2 JUNE 77 ASKENSION N	GENMETRIC ALTITURE MSL FEET M	00	0.00046	00	.000	95500.0	9.000.0	500°	.00	500.	.000	8500.	99000•		00000	•	01000	01500.	ė	•	ò		04000.	# 500°	ċ	0	.000

STATION ALTITUDE 3989.OF FEET MSL 2 JUNE 77 1410 HRS MDT ASCENSION NO. 441

WANDATORY LEVELS 155002049 WHITE SANDS TABLE XII.

KSTM STTE COORDINATES 488583.00 FEET E 185045.00 FEET N

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\*\* AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.